

全球数字金融智库报告集萃

GLOBAL DIGITAL FINANCE THINK TANK REPORT COLLECTION

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目录

导言概述/ Introduction Overview	2
一、人工智能治理 (The Metaverse: Opportunities and Challenges for the Financial Services Industry)	4
二、第三方风险的健全管理原则 (Decentralised Finance: Current Landscape and Regulatory Developments)	12
附件	19

导言概述 / Introduction Overview

深圳市大湾区金融研究院发布了《全球数字金融智库报告集萃》（2024年8月第一期），继续深入分析数字金融的主要趋势、挑战和机遇。本周的报告汇总了两篇重要报告的关键见解，分别聚焦于元宇宙对金融服务行业的机遇与挑战以及去中心化金融的现状和监管发展。

《元宇宙：金融服务行业的机遇与挑战》报告指出，元宇宙有潜力通过增强品牌参与度、个性化服务和运营效率来革新金融服务行业，同时也承认存在显著的挑战，如数据隐私问题、高开发成本和集成复杂性。报告强调，需要进行战略规划、建立健全的监管框架以及推动支持技术的发展，以促进元宇宙在香港金融生态系统中的无缝整合。

《去中心化金融：现状与监管发展》报告强调，去中心化金融（DeFi）有潜力通过区块链技术提供可访问、高效和安全的系统，从而革新金融服务，同时识别出关键风险，包括治理问题、合规挑战和技术漏洞。报告主张采用“相同活动、相同风险、相同监管”的监管方法，并强调人才发展、混合金融基础设施和增强的公私合作对香港 DeFi 可持续发展的重要性。

这些研究共同强调了元宇宙的战略规划、健全的监管框架，以及基于“相同活动、相同风险、相同监管”的 DeFi 监管方法的必要性。通过解决数据隐私、高开发成本、集成复杂性、治理问题和合规风险等挑战，并通过促进人才发展、技术进步和公私合作，政策制定者和金融机构可以在缓解相关风险的同时，利用数字金融的潜力造福社会。

The Shenzhen Greater Bay Financial Research Institute released the Global Digital Finance Think Tank Report Collection (Issue 1, August 2024), which continues to provide in-depth analysis of the major trends, challenges and opportunities in digital finance. This week's report consolidates key insights from two important reports, focusing on the Opportunities and Challenges of the Metaverse for the Financial Services Industry and on the Current Landscape and Regulatory Developments of Decentralised Finance.

The report "The Metaverse: Opportunities and Challenges for the Financial Services Industry" highlights the metaverse's potential to revolutionize the financial services industry through enhanced brand engagement, personalized services, and operational efficiencies while also acknowledging significant challenges such as data privacy concerns, high development costs, and integration complexities. It emphasizes the need for strategic planning, robust regulatory frameworks, and the advancement of enabling technologies to facilitate the seamless integration of the metaverse into Hong Kong's financial ecosystem.

The report on "Decentralised Finance: Current Landscape and Regulatory Developments" underscores DeFi's potential to revolutionize financial services by offering accessible, efficient, and secure systems via blockchain technology while identifying key risks, including governance issues, compliance challenges, and technological vulnerabilities. It advocates for a regulatory approach based on 'same activity, same risk, same regulation' and highlights the importance of talent development, hybrid financial infrastructure, and enhanced public-private collaboration for the sustainable growth of DeFi in Hong Kong.

Together, these studies underscore the need for strategic planning, robust regulatory frameworks for the metaverse, and a regulatory approach for DeFi based on 'same activity, same risk, same regulation.' By addressing challenges such as data privacy, high development costs, integration complexities, governance issues, and compliance risks, and by promoting talent development, technological advancements, and public-private collaboration, policymakers and financial institutions can harness the potential of digital finance to benefit society while mitigating associated risks.

类别	关键词	主体
观点	元宇宙	香港货币及金融研究院 (Hong Kong Institute for Monetary and Financial Research)
观点	去中心化金融	香港货币及金融研究院 (Hong Kong Institute for Monetary and Financial Research)

一、元宇宙：金融服务业的机遇与挑战（The Metaverse: Opportunities and Challenges for the Financial Services Industry）

时间：2024年6月25日

来源：香港货币及金融研究院（Hong Kong Institute for Monetary and Financial Research）

《元宇宙：金融服务业的机遇与挑战》是由香港货币及金融研究院（HKIMR）于2024年6月25日发布的一份报告，深入分析了元宇宙及其对金融服务行业潜在的颠覆性影响。元宇宙是一个由尖端技术驱动的沉浸式虚拟环境互联网络，有望彻底改变包括金融在内的各个行业。该报告探讨了元宇宙的定义、核心组成部分及其对金融机构的潜在影响，为如何将这一新兴技术整合到金融生态系统中提供战略见解。

报告的主要目标是全面概述元宇宙，并探索其对金融服务行业的广泛影响。它旨在识别元宇宙带来的机遇和挑战，评估当前的形势和最新发展，并收集行业利益相关者对其在香港未来发展的见解。此外，报告还审视了监管框架，并提出了将元宇宙无缝整合到香港金融服务基础设施中的考虑因素。

为实现这一目标，HKIMR进行了调查和访谈，涵盖了包括银行、保险公司、资产管理公司和元宇宙服务提供商在内的主要市场参与者。题为《香港金融服务行业元宇宙的当前形势与发展》的调查从2023年5月到7月进行。访谈中的定性数据进一步丰富了定量调查结果，加强了对金融机构中元宇宙应用及其面临障碍的理解。

主要发现显示，超过90%的受访金融机构对元宇宙有一定程度的了解，其中65%已经在进行与元宇宙相关的项目。当前的使用案例包括营销和推广、内部运营、人才招聘和公司社交活动。报告强调了元宇宙为金融机构带来的若干战略机会，包括增强品牌参与度、提供定制化服务、建立新型营销渠道、扩大客户群体以及提高运营效率。

然而，重大挑战依然存在，包括消费者采用和兴趣的有限性、严格的数据隐私要求、平台功能不足、熟练人才短缺、巨大的开发和维护成本以及与现有系统的集成复杂性。这些挑战凸显了对强有力的风险管理和战略规划的重要性。

报告对监管环境进行了详细审视，回顾了国际监管举措，并强调了在网络安全、数据隐私、金融交易、用户保护和知识产权等领域加强治理的重要性。香港现行的虚拟资产监管措施被认为是促进可持续和安全的元宇宙生态系统的關鍵。

展望未来，报告指出，推动元宇宙发展的关键技术——如下一代网络基础设施、高保真显示硬件、可扩展计算解决方案和区块链技术——的进步至关重要。一个成熟的元宇宙生态系统，以广泛采用和高频率的商业交易为特征，对于证明在元宇宙应用中的持续投资是必要的。

报告最后提出了促进元宇宙有序整合到香港金融服务行业的战略建议。这些建议包括培养技能人才库、促进创新和创业以及投资必要的数字基础设施。此外，提高利益相关者对元宇宙的认知和知识，促进跨部门合作，并根据技术发展调整监管框架，对于确保消费者保护、促进强劲创新并保持金融稳定至关重要。

摘要：作为一种将物理和虚拟领域互连的新范式，元宇宙有望重塑金融服务格局。“元宇宙”广义上是指通过一系列前沿技术创建的沉浸式虚拟世界网络，旨在模拟或改变现实世界的体验。全球的监管机构和政策制定者越来越重视这一技术，认识到在充分利用元宇宙潜力与有效管理其挑战之间取得平衡的重要性，以确保其在金融服务行业的健康发展。

本报告概述了元宇宙的发展，并讨论了其对金融服务行业的广泛影响。基于香港货币及金融研究院（HKIMR）在2023年5月至7月委托进行的调查和访谈，报告描述了本地金融机构对元宇宙的参与情况和未来前景，并探讨了其带来的机遇和挑战。报告还探讨了市场参与者对香港元宇宙前景、元宇宙人才格局及促进元宇宙在金融服务业发展的策略的看法。在回顾了国际和香港关于元宇宙及其相关领域的监管举措后，报告提出了元宇宙未来在香港金融服务业发展的考虑。

元宇宙的流行愿景特点包括沉浸性、持久性、异质性和互操作性。一系列支持技术，包括网络基础设施、计算基础设施、传感技术、人工智能技术和分布式账本技术，构建了元宇宙，以促进无缝和创造性的互动，并促进商业和金融活动。元宇宙的发展可能通过推动对虚拟金融服务的需求和提升业务运营，为金融服务行业带来新的商业机会。它还可以通过互动教育体验促进金融素养。然而，元宇宙可能会在数字时代使金融服务行业面临新的风险或放大现有风险。这些发展突显了监管机构在监控元宇宙的负责任发展、确保金融稳定同时鼓励金融服务行业创新中的重要作用。

香港的金融机构对元宇宙表现出了显著的兴趣，但在这一领域的参与度较为温和。根据调查结果，超过90%的金融机构表示对元宇宙有一定程度的了解，65%的金融机构报告了在元宇宙方面的参与，从讨论和规划阶段到元宇宙采用的实施阶段。目前元宇宙应用主要涵盖了市场营销和推广、内部使用、人才招聘和职场社交活动。此发现表明本地金融机构倾向于将元宇宙作为一个额外渠道，以促进与公众、客户和员工的互动。然而，受访金融机构对元宇宙作为投资工具、销售渠道和收入来源及提供特定元宇宙产品和服务的应用表示出较少的热情。这表明，向具有成熟用例和频繁业务交易的全面元宇宙生态系统过渡，将是推动金融服务行业中元宇宙采用的关键因素。

元宇宙采用的未来前景与相关支持技术的进步密切相关。市场参与者指出，网络技术、显示硬件、计算技术和区块链技术是推动元宇宙增长的关键组成部分，从而扩大

元宇宙在金融服务行业的应用范围。此外，85%的市场参与者预计元宇宙的发展将在某种程度上对金融服务行业产生影响。

受访的金融机构认为元宇宙的采用可以为金融服务行业带来一系列好处。元宇宙可以促进更具吸引力的品牌活动，并与客户建立更好的联系。它还可以提供独特的服务产品，并作为一个独特的营销渠道，提供定制的客户体验。元宇宙还可以通过扩大客户基础和提高运营效率来惠及金融机构。然而，这一技术也带来了需要有效解决或减轻的潜在挑战。金融机构面临的主要挑战包括数据隐私问题、平台功能的限制以及人才和专业知识的稀缺。用户采用和兴趣的有限、高开发和维护成本以及将元宇宙与现有运营和系统整合的困难也被列为元宇宙整合的相关障碍。

对香港元宇宙人才格局的分析揭示了金融机构与元宇宙服务提供商之间的差异。金融机构在元宇宙人才获取方面的参与度相对较低。相比之下，大多数元宇宙服务提供商表示，他们拥有足够的具备元宇宙相关技能的专业人才。元宇宙服务提供商还强调在香港获取更多具有元宇宙特定技能的人才，并指出区块链技术专家是雇主最为需求的专业人才。培养人才对于促进元宇宙的广泛采用和整合至关重要，监管机构和政策制定者可以在应对相关挑战以及促进本地元宇宙行业人才和技能的可持续发展方面发挥重要作用。适当的元宇宙监管监督有助于确保市场诚信，并可能在推动金融服务行业元宇宙采用的同时，增强消费者信任。市场参与者指出了元宇宙可从增强监管和治理中受益的几个关键方面，包括网络安全和数据隐私、金融交易以及用户安全和福祉。市场参与者还强调了知识产权、内容审核和行为准则的重要性，以确保元宇宙的负责任和安全使用。

一些司法管辖区的监管机构和政策制定者已采取措施，制定监督指导和监管措施，以监督和促进元宇宙的发展。特别是，他们在四个关键领域进行了强调，即用户安全和福祉、知识产权、网络安全和数据隐私以及金融交易。在香港，虽然目前没有针对元宇宙的具体监管措施，但与虚拟资产相关活动的现行监管努力也将在元宇宙生态系统中发挥重要作用，促进城市数字环境的负责任和可持续发展。

香港具备独特的特点来引导元宇宙在金融服务行业的发展。事实上，调查中的市场参与者认为，香港所拥有的明确的法律和监管框架、商业友好环境以及强大的金融基础设施和网络是其关键竞争优势。该市的战略位置、互联互通、双语环境和交易系统是吸引元宇宙利益相关者的其他优势。作为全球领先的商业和金融中心，香港提供了一个理想的环境来吸引和维持人才和企业，从而促进元宇宙的健康发展。

根据市场参与者的观点和其他司法管辖区的经验，本报告提出了一些考虑，以确保元宇宙在香港金融服务行业的有序和稳健整合。这些考虑包括培养人才和促进创新创业，支持技术和数字基础设施发展。提高对元宇宙的认识，并促进利益相关者之间以及跨司法管辖区的合作，也将是建立元宇宙生态系统内一致性和互联互通的关键。其他考虑包括适应相关监管框架以跟上最新发展的步伐，并为金融机构内的元宇宙采用建立明确的公司治理结构。这些考虑对于在采用元宇宙应用时保护消费者和促进强劲的创新，同时确保金融稳定至关重要。

The report "The Metaverse: Opportunities and Challenges for the Financial Services Industry," published by the Hong Kong Institute for Monetary and Financial Research (HKIMR) on June 25, 2024, delivers an in-depth analysis of the metaverse and its potential disruptive impact on the financial services sector. The metaverse, an interconnected network of immersive virtual environments powered by cutting-edge technologies, is poised to revolutionize various industries, including finance. This report delves into the metaverse's definition, core components, and potential ramifications for financial institutions, providing strategic insights into how this nascent technology can be integrated within the financial ecosystem.

The report's primary objective is to offer a comprehensive overview of the metaverse and explore its extensive implications for the financial services industry. It seeks to identify both opportunities and challenges posed by the metaverse, evaluate the current landscape and recent developments, and gather insights from industry stakeholders regarding its future trajectory in Hong Kong. Additionally, the report examines regulatory frameworks and proposes considerations for the seamless integration of the metaverse into Hong Kong's financial services infrastructure.

To achieve this, HKIMR conducted a survey and interviews with key market participants, including banks, insurers, asset managers, and metaverse service providers. The survey, titled "Current Landscape and Developments of the Metaverse in Hong Kong's Financial Services Industry," was conducted from May to July 2023. The qualitative data from interviews provided further depth to the quantitative survey results, enhancing the understanding of metaverse applications within financial institutions and the obstacles they encounter.

Key findings reveal that over 90% of surveyed financial institutions possess a certain degree of knowledge about the metaverse, with 65% already engaging in metaverse-related initiatives. Present use cases encompass marketing and promotion, internal operations, talent acquisition, and corporate social events. The report highlights several strategic opportunities the metaverse presents for financial institutions, including the enhancement of brand engagement, the delivery of bespoke service offerings, the establishment of novel marketing channels, expansion of customer demographics, and operational efficiencies.

However, significant challenges persist, including limited consumer adoption and interest, stringent data privacy requirements, inadequate platform functionalities, a shortage of skilled talent, substantial development and maintenance costs, and integration complexities with existing systems. These challenges underscore the necessity for robust risk management and strategic planning.

The regulatory landscape is critically examined, with the report reviewing international regulatory initiatives and emphasizing the importance of enhanced governance in areas such as cybersecurity, data privacy, financial transactions, user protection, and intellectual property

rights. Current regulatory measures pertaining to virtual assets in Hong Kong are identified as pivotal to fostering a sustainable and secure metaverse ecosystem.

Looking forward, the report identifies the advancement of enabling technologies—such as next-generation network infrastructure, high-fidelity display hardware, scalable computing solutions, and blockchain technology—as essential to accelerating metaverse development. A mature metaverse ecosystem, characterized by widespread adoption and high-frequency business transactions, is crucial for justifying ongoing investments in metaverse applications.

The report concludes with strategic recommendations to facilitate the orderly integration of the metaverse into Hong Kong's financial services sector. These include nurturing a skilled talent pool, fostering innovation and entrepreneurship, and investing in the requisite digital infrastructure. Additionally, increasing awareness and knowledge about the metaverse among stakeholders, fostering cross-sector collaborations, and adapting regulatory frameworks to evolving technological landscapes are vital for ensuring consumer protection and promoting robust innovation while maintaining financial stability.

Abstract: As a new paradigm interconnecting the physical and virtual realms, the metaverse brings the prospect of reshaping the financial services landscape. ‘The metaverse’ broadly refers to a network of immersive virtual worlds, created using a range of frontier technologies to mirror or transform real-world experiences. Regulators and policymakers across the globe are increasingly conscious of this technology, recognising the importance of achieving a balance between harnessing the potential of the metaverse and effectively managing its challenges to ensure its healthy development in the financial services industry.

This report provides an overview of the metaverse and discusses the broad implications of its development for the financial services industry. Based on a survey and interviews commissioned by the Hong Kong Institute for Monetary and Financial Research (HKIMR) from May to July 2023, the report describes local financial institutions’ engagement and future prospects regarding the metaverse and explores some opportunities and challenges that it presents. The report also explores market participants’ views on prospects regarding the metaverse in Hong Kong, the metaverse talent landscape, and strategies to promote the development of the metaverse in financial services. After reviewing the regulatory initiatives on the development of the metaverse and its related fields internationally and in Hong Kong, the report concludes by offering considerations for the metaverse’s future development into the city’s financial services industry.

The popular vision for the metaverse is characterised by immersiveness, persistency, heterogeneity, and interoperability. A range of enabling technologies, including network infrastructure, computing infrastructure, sensing technologies, artificial intelligence technologies, and distributed ledger technologies, underpin the construction of the metaverse

to foster seamless and creative interactions, as well as facilitate commercial and financial activities. The development of the metaverse may bring new business opportunities to the financial services industry by driving demand for virtual financial services and enhancing business operations. It can further promote financial literacy through interactive education experiences. However, the metaverse may expose the financial services industry to new risks or magnify existing ones in the digital age. These developments highlight the important role played by regulators in monitoring the responsible development of the metaverse, ensuring financial stability whilst encouraging innovation in the financial services industry.

Hong Kong's financial institutions have shown a notable interest in the metaverse but displayed a moderate level of engagement in this field. According to our survey's findings, over 90% of the financial institutions demonstrated a certain degree of knowledge of the metaverse, and 65% reported involvement in the metaverse, ranging from the discussion and planning stage to the implementation of metaverse adoption. Current metaverse applications have generally encompassed marketing and promotion, internal use, talent recruitment, and workplace social events. This finding indicates that local financial institutions are inclined to leverage the metaverse as an additional channel to promote interactions with the public, customers, and employees. Nonetheless, the surveyed financial institutions expressed less enthusiasm towards certain applications of the metaverse as an investment tool, sales channel, and revenue stream and the provision of metaverse specific products and services. These suggest that the transition to a comprehensive metaverse ecosystem with mature use cases and frequent business transactions among customers will be important factors driving increased metaverse adoption in the financial services industry.

The future prospects of metaverse adoption are closely linked to the advancement in relevant enabling technologies. Network technology, display hardware, computing technology, and blockchain technology were highlighted by market participants as crucial components that contribute to the growth of the metaverse, thus expanding the scope of metaverse applications within the financial services industry. In addition, 85% of the market participants anticipated that the development of the metaverse would have implications for the financial services industry to some degree.

The surveyed financial institutions perceived that metaverse adoption could offer a range of benefits to the financial services industry. The metaverse can facilitate more engaging branding activities and cultivate better connections with customers. It also can provide unique service offerings and serve as a distinct marketing channel, delivering tailored customer experiences. The metaverse can further benefit financial institutions through the expansion of customer bases and improvements in operational efficiency. Nonetheless, this technology also poses potential challenges that need to be effectively addressed or mitigated. The major challenges faced by financial institutions include data privacy issues, limited platform functionalities, and the scarcity of talents and expertise. Limited user adoption and interest, high development and maintenance costs, and difficulties in integrating the

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